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SOME PRINCIPLES IN EXTENSION TEACHING/1

As Applied to 4-H Work With Farm Boys and Girls

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INTRODUCTION

The Federal and State Extension System is founded on the philosophy that the utility value of knowledge is the best evidence of its worth. Extension teaching functions by using problems as they exist in their natural setting in actual life situations.

Two notable movements have made significant contributions to the present system of extension work in agriculture and home economics. In order of their origin these were: (1) The farmers' institutes established about the middle of the nineteenth century and carried on by the State agricultural colleges and by the State Boards of Agriculture, and (2) The farmers' cooperative demonstration work, established in the early years of the present century. Dr. Seaman A. Knapp was the founder and inspiring leader of the latter movement.

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[1 Presented at delegates' conference, Twelfth National 4-H Club Camp, Washington, D. C., Tuesday, June 21, 1938.

The teaching methods advocated and used by Dr. Knapp were a radical departure from the orthodox lecture method of extension teaching in use almost exclusively prior to his time. The method he used was a new approach in the quest for an improved agricultural and farm life. Teaching by means of demonstration on the home farm provided a new methodology for extension teaching. Up to this time learning to do by doing had made little progress in extension teaching.

Farmers' institutes were an outgrowth of the early agricultural societies and the work of the State boards of agriculture. Lectures and addresses at farmers' institutes on some of the more technical phases of agriculture, and particularly in the sciences related to agriculture, were given by college and university teachers, generally for 1, 2, or 3 days during the winter months. Scientific and practical farmers and others often were used as lecturers at these institutions. For the greater part the methodology used in teaching consisted of lectures rather than of demonstrations designed to show the value of knowledge when applied to the solution of everyday farm problems.

What was the philosophy of the farmers' cooperative demonstration work? As leader of this movement, Dr. Knapp's philosophy of extension teaching was that farmers themselves should carry out demonstrations on their own farms under ordinary conditions, under the guidance of a teacher trained in agriculture. This idea is verified by one of his statements in which he said: "The aim of the farmers' cooperative demonstration work is to place a practical object lesson before farm masses, illustrating the best and most profitable methods of producing the standard farm crops and to secure such active participation in the demonstrations as to prove that the farmers can make a much larger average crop and secure a greater return for their toil." In the opinion of Dr. Knapp there was only one effective way of reaching and influencing the farming classes and that was by the object lesson.

What was his philosophy with respect to club work with farm youth?

In the earlier years of farm demonstration work, interested and intelligent boys were formed into boys' clubs and used as demonstrators. In reference to club work, Dr. Knapp mentioned these objects:

(1) To place before the boy, the family, and the community in general an example of crop production under modern scientific methods.

(2) To prove to the boy, his father, and the community generally that there is more in the soil than the farmer has ever got out of it. To inspire the boy with a love of the land by showing him how he can get wealth out of it by tilling it in a better way and keeping an expense account of the undertaking.

(3) To give boys definite worthy purposes at an important period in their lives and to stimulate a friendly rivalry among them.

(4) To furnish an actual field example in crop production that will be useful to rural school teachers in vitalizing the work of the school and correlating the teaching of agriculture with actual practice.

It is obvious from these statements that Dr. Knapp's philosophy of both club work and extension work for adults was definitely toward the practical plan of teaching which involved learning by doing. He believed that the surest way to improve rural conditions was by broadening and enriching rural life to the end that farming could be made an occupation of profit and pleasure.

There are, of course, teaching means and agencies other than the project or demonstration that can properly be designated and used effectively as methods in extension teaching. Some of these are: The discussion method, the lecture method, news articles, circular letters, personal conferences, and so on, each of which has a place in the methodology of extension teaching, depending on the situation. The good teacher will understand how and when to adopt a method to suit the situation or particular problem at hand.

The present philosophy and methodology with regard to 4-H Club work does not differ radically from the procedure used by Dr. Knapp more than a third of a century ago. The methodology of 4-H Club work today is definitely objective and therefore the problem method of attack.

It is believed, however, that through observation and studies over the years in 4-H Club work we have been able to determine certain educational values that were not definitely defined in its earlier stages. If this is a new concept it should not be condemned, rather it should be the object of unrelenting praise. If 4-H Club work is educational, it must function in the broader sense in developing rural boys and girls for efficient leadership and citizenship.

In every educational program there are certain basic principles to consider if the best results are to be attained. With regard to methodologies in conducting 4-H Club work there appear in the judgment of your speaker to be six fundamental steps that are preliminary to the teaching process. In their logical order these seem to be: (1) Determining the educational objective of the work to be done; (2) defining immediate goals to be attained; (3) developing an effective State, county, and local extension organization; (4) developing a program of work, adapted to local conditions, to meet the interest, ability, and needs of individual boys and girls; (5) determining the teaching means and agencies to use in carrying out an effective 4-H Club program; and (6) criteria to use in measuring and evaluating the effectiveness of the 4-H Club program on the community and on the intellectual growth of boys and girls.

#### EDUCATIONAL OBJECTIVES OF 4-H CLUB WORK

Before any form of educational training has a right to a place in the educational system of a democracy its objectives should first be defined. In a broad sense the objectives of 4-H Club work were, in my judgment, appropriately defined in the Report of the National Committee of Land-Grant Colleges and the United States Department of Agriculture on 4-H Club work in 1935. It is not my purpose to repeat those objectives here, inasmuch as you have access to them in the report mentioned. These objectives have been accepted, and it



is our hope they are now being used as the basis for developing and carrying into effect a specialized program of training for farm youth. In a more detailed analysis of the foregoing objectives which are general and most comprehensive, I interpret from them, either expressed or implied, certain definite objectives which to me are basically sound from the educational approach. These are: (1) Economic production and consumption, (2) aesthetic appreciation, (3) ethical conduct, (4) educational and vocational guidance, (5) social enjoyment, (6) health, (7) recreation, (8) civic responsibility, and (9) worthy home membership. Incidentally and much to my satisfaction these objectives are in almost complete agreement with a list of objectives set up for secondary education some years ago.

It is one thing to set up a series of objectives in any educational enterprise. It is quite another thing to attain the objectives. One thing is paramount with respect to the attainment of these aims, and that is, they must be well understood and appreciated by those most directly responsible for their attainment. No one would seriously question that State 4-H Club leaders fully understand and appreciate the significance of these educational objectives. But the extent to which they are clearly comprehended by the vast majority of local club leaders, and perhaps by many local extension agents, may be a question concerning which there are differences of opinion. If the objectives are not fully understood by either or both groups, it is incumbent on some group to assume responsibility in helping to clarify the situation to the extent that they can be utilized properly by all in developing the potential abilities and capacities of individual boys and girls. Because approximately 50 percent of those who receive 4-H Club training leave the farm and choose some other calling as a life work, it is all the more significant that the club program be projected on broad and sound principles of education.

The fact cannot be denied therefore that the educational aspect of 4-H Club work offers a challenge of supreme significance to every State and county extension worker and local leader.

#### DEFINING THE IMMEDIATE GOALS TO BE ATTAINED IN THE EDUCATIONAL PROCESS OF 4-H CLUB WORK

Immediate goals as here conceived differ from objectives in two respects - first, in the time element, and, second, in the quantity of the work to be done. The goals to be striven for are a part and parcel of the objectives set up. The objectives may be more inclusive and incidentally extend over a longer period of time. For example, the economic objective of 4-H Club work will comprise more than could be accomplished in one year of the work. Yet some phase of economic production might be achieved with credit to the club members in 1 year, and still more could be accomplished if the boy or girl remains in club work for a longer period. Similar illustrations could be given regarding the immediate goal of any of the other educational objectives.

If it is important that the educational objectives be thoroughly defined and understood by every person connected in any way with 4-H Club work in the State, county, and local communities, it is equally as important that

the immediate goals be as well understood, particularly in view of the fact that the average length of membership in club is approximately 2.5 years. It is apparent that many farm youth actually derive a great deal of valuable training and experience through the work, even when the time as a club member does not extend longer than 1 or 2 years. The quality of 4-H Club training will vary in proportion as the leadership understands appropriate educational approaches and utilizes the best teaching methods to meet the problems at hand. Instruction in club work in reality is the proverbial problem method of approach in meeting actual life situations. But this phase of club work can be made to function properly only as every club member agrees and actually does carry out a project or demonstration in some phase of farm or home work that will be constructive and useful to individuals and members of the farm family.

This particular phase of the club program will in all probability take care of the economic goal for the year. But there are other goals to be striven for in some if not all of the other 4-H Club objectives maintained. It is important that local leaders be informed and trained in the most appropriate approach to the attainment of these goals.

#### DEVELOPING AN EFFECTIVE ORGANIZATION

Every element of the State, county, and extension organization has a function to perform in contributing to the success of extension teaching. With regard to 4-H Club work, the services of local leaders are perhaps the most essential after the framework of the organization is set up. It is on this particular phase of the extension organization that this part of my paper will center.

Much effort has been put forth by State club leaders and county extension workers in recent years to train and develop local leadership for club work. My observation is that the great majority of State leaders believe there is need for much additional effective work in this direction. Assuming there is such a need for additional training in leadership, what should be the content of the training program in agricultural and home-economics subject matter as well as in other fields?

According to a certain study of local leadership in 4-H Club work<sup>/2</sup> there are other difficult functions which local leaders encounter in their work. Some of the more important of these are: (1) Organizing and conducting clubs to keep up interest, (2) training demonstration teams, (3) teaching subject matter, (4) training judging teams, (5) conducting achievement meetings, (6) giving demonstrations, (7) conducting recreational activities, (8) helping with records and reports, etc.

It is my feeling that local leaders also should have considerable training in such topics as: (1) The nature of leadership, (2) characteristics

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<sup>/2</sup> Erwin H. Shinn. A study of Local Leadership in 4-H Club Work. U. S. Department of Agriculture, Extension Service Circular 267. 22 pages (mimeo.). July 1937.



of leaders, (3) technique in leadership, (4) handicaps to leadership, (5) various ways of getting people to cooperate, (6) different methods used in influencing human behavior, and (7) what a functional community organization really is. There are, of course, other problems with which local leaders are confronted.

To attain the best results it seems obvious that local leaders should have adequate training along as many of the foregoing lines as is possible under normal conditions. A clearer understanding on the part of local leaders with respect to the educational values boys and girls derive from club work should help to stimulate their interest in the importance of the work they are endeavoring to do.

### DEVELOPING THE PROGRAM

The 4-H Club phase of the extension program is designed to meet local conditions and individual needs as they relate to farming and homemaking. The program therefore adheres to the same basic principles and objectives as does extension work for adults. Thus it is proper that this program should function through channels by which the teaching procedure utilizes as content current problems, the solution of which are vital to the economic, social, and intellectual well-being of farm people. In structure as well as in function 4-H Club work is dedicated to the teaching of knowledge and in the development of skills as they pertain to the solution of problems common to the farm, the home, and community. By offering rural boys and girls opportunities of taking active part in helping to solve problems and in meeting needs of the community commensurate with their own interest and needs, the educational process can be made an ideal setting for stimulating desire, changing attitudes, and developing ideals which lead directly to intellectual growth of the individual boy or girl. This assumes, however, that individual projects are selected on the basis of their educational values to the extent that the plan of work laid out for each boy or girl will be in accordance with interest, ability, and needs of the individual club member. There is no doubt as to the multitude of problems to be found in different situations affecting the welfare of the farm, the home, or the community, many of which have the proper appeal to the interest and at the same time fit the needs and capacities of individual boys and girls.

### TEACHING METHODS USED IN CARRYING OUT THE PROGRAM

In carrying out an extension program for farm youth, extension agents and local leaders should keep clearly in mind the immediate goals that are to be attained during the year. The immediate goals must be determined on the basis of needs and interest with regard to the different communities. There are a number of means and agencies that are used in carrying out every extension program. As is characteristic of all club work, a project or a demonstration of some kind is a requirement for 4-H Club membership. In reality this involves a demonstration on the part of the club member designed to show an improved method of performing a piece of farm or home work that



will be useful and constructive. Whether a demonstration is intended to teach an object lesson to the community or to the individual boy or girl, the procedure should be so directed as to produce good results under normal conditions. This kind of a project normally will come under the economic objective of club work, since it may involve both economic production and economic consumption.

In regard to the other objectives of 4-H Club work, the health objective intends to develop desirable habits and attitudes of healthful living such as selection of proper food and clothing and care and exercise of the body, and to stimulate the home to cooperate in developing these habits and attitudes. Health projects have been used effectively in certain instances.

In regard to the guidance objective, there are data to show that club training does function in developing vision as to the importance of agriculture as a basic industry and of homemaking as a worthy occupation. As an educational function club work teaches the value of scientific knowledge when applied to farm, home, and community problems, and that training by doing is the best kind of education. Furthermore, club training provides guidance in the choice of a life work and develops leadership ability, self-confidence, and the like.

In a social way club work helps to impart knowledge about the importance of social organization, to broaden acquaintance, and to develop a better form of social life at home and in the community.

With regard to the aesthetic objective, club work has value in providing for the attainment of a better understanding and appreciation of nature and of the home environment; for the development of proper standards and ideals on the farm, and habits of acquiring those things that add to the beauty, comfort, and convenience of farm life. Here again projects can be used as object lessons.

4-H Club work has the opportunity and actually does serve in developing desirable ideals and habits of conduct and cooperation to the extent of instilling a spirit of good fellowship and sportsmanship, including proper respect for the rights and interests of others, and to show the value of cooperation when controlled by proper attitudes and understanding. Similar statements could be made with reference to the other objectives of club work as to what they may offer toward the fuller development of farm youth. The ultimate attainment in any of these fields, certainly with the average and above the average club member, depends largely on vision and appreciation of these values, and the determination of the leadership, both local and county, to attain them. Such an accomplishment is possible only when proper educational procedures are used in directing the learning process along these lines.

Some of these more or less abstract fields do not lend themselves well to the setting for an object lesson in the practical aspect of learning to do by doing. Yet they are fields within which knowledge needs to be imparted and ideals and attitudes need to be formulated as to their place in the 4-H Club program.

In the teaching process it is well to remember that certain factors in training the mind to learn and retain knowledge are important. These factors are interest, concentration, understanding, repetition, association, and application, all of which are vital to the retention of knowledge.

The first step in the learning process is interest. Its value as a basis in teaching cannot be refuted. Interest is the impulse to act. Interest may be created by giving information and arousing activity. It may be aroused through wants and needs such as ownership, security, and achievement. Some other natural sources of interest are love of nature, curiosity, creativeness, sympathy, imitation, love of approbation, competition, self-advancement, and a desire for prominence. It is obviously true that the greater the interest is, the greater the learning will be.

Retention is the last factor in the learning process. If what is learned is used frequently in solving everyday problems, the knowledge is likely to be retained. The common saying that one learns exactly what he uses is true. Retention usually results if facts are repeated, recalled frequently, and utilized in subsequent thinking.

#### WHAT DATA CAN BE USED AS RELIABLE CRITERIA FOR MEASURING EFFECTIVENESS OF THE 4-H CLUB PROGRAM ON BOYS AND GIRLS

Little has been done up to the present time in the way of developing scientific processes with respect to measuring the effect of 4-H Club work on the intellectual growth of its members. This is probably the next step in a scientific approach to this problem. There are now in existence however, certain criteria which can be used with a considerable degree of accuracy in measuring the success of club work. Some of them are: (1) Increase in enrollment this year over last year, (2) increases in the percentage of completion this year over the previous year, (3) percentage of club projects which show a profit this year over that for last year, (4) increase in the average years club members remain in the work, (5) percentage of club members who reenrolled this year compared with that for last year, (6) increase in the number of club members per extension agent, (7) increase in the number and quality of local leaders, (8) increase in attendance at leader-training meetings, (9) increase in the number of local leader-training meetings, (10) increase in the number of judging and demonstration teams, (11) interest and stability of club membership. (There are, of course, other ways of measuring the success of the club program, but the foregoing are some which it would seem could be used more or less effectively in measuring the progress of the work. After all, achievement is the test of the club program because it is objective. Achievement is activity that solves problems and meets needs. Achievement is the end product of the social process in which there is: (a) Need of some kind, (b) recognition of that need, and (c) activity that meets that need in some manner. To find a need or a problem of some kind is not difficult in 4-H Club work with farm boys and girls. It is incumbent on the leadership to recognize the need, and finally to point the way through a teaching procedure that satisfactorily and effectively meets that need.

Finally, the ultimate measure of the effectiveness of any system of educational training as regards its usefulness to humanity will be found in the number of educated citizens. That form of education, which trains for healthful living, develops an appreciation and enjoyment of the nobler things of life, provides for the attainment of knowledge and skill to perform useful labor well, develops a heart full of sympathy and understanding to the end of attaining justice for all, guides youth in the choice of a life work and offers adequate training for that work, and develops attitudes and ideals with respect to loyalty and patriotism as they relate to public welfare, will function in a democratic society. The future prosperity and security of farm life depend on the quality of training that is provided for farm youth. Here is the challenge and should be found the true interest, the chief strength, and the real power of the 4-H Club program.

#### SUMMARY

In conclusion I have portrayed in this paper what I conceive to be six fundamental steps as preliminary in a good teaching procedure as applied to extension work with farm boys and girls. Repeated in their logical order these are:

- (1) Determining educational objectives and their probable value on the educational growth of farm youth. These involve the use of concrete problems of the farm, the home, and the community.
- (2) Defining immediate goals to be striven for in the 4-H Club program for the year.
- (3) Developing an effective State, county, and local extension organization as the functional machine for carrying out the program.
- (4) Developing a program of club work adapted to local conditions and to meet the needs, interests, and ability of individual boys and girls.
- (5) Determining the teaching means and agencies to use in carrying out an effective 4-H Club program.
- (6) Developing plans and procedures to follow in collecting valid and reliable data for measuring and evaluating the effectiveness of the club program on the community and on the educational growth of farm youth.

Adequate intellectual treatment with respect to each and all of the foregoing are, in my judgment, indispensable to effective extension teaching.

Sound educational objectives are the foundation upon which rest the hope and worth of every educational enterprise. This list of educational objectives for 4-H Club work, previously stated, as I conceive them are:

- (1) Economic production and economic consumption: Economic production includes both the acquirement of knowledge and the development of skills in doing things on the farm and in the home. Economic consumption involves



acquiring knowledge as to the proper standard of values of things to be consumed with proper habits of dress, personal appearance, home decorations, beautification, etc.

(2) The Aesthetic objective concerns the attainment of a better understanding and appreciation of nature and of the rural home environment, the development of proper standards and ideals for a life on the farm, proper tastes for the enjoyment of the beautiful, and desires to acquire those things that add to the beauty and comfort of the home.

(3) The ethical objective pertains to the development of desirable ideals and habits of conduct and cooperation, proper attitudes and feeling of responsibility for cooperation between members of the same family and families of the same community.

(4) The educational and vocational guidance objective intends to give a broader vision of the importance of agriculture as a basic industry and of homemaking as a worthy occupation, and to teach and demonstrate the value of scientific knowledge when applied to farm, home, and community problems; to teach how to use knowledge and to learn to do by doing. It aims to provide guidance in the choice of a life work and to develop self-confidence and leadership ability.

(5) The sociability objective helps to develop broader acquaintance through desirable social contacts with club members from other sections, and to provide better social life at home and in the community.

(6) The health objective aims to develop desirable habits and attitudes in regard to healthful living, such as proper selection of food and clothing and proper exercise and care of the body; and to inspire the home and the community to cooperate in safeguarding health.

(7) The recreation objective fosters the development of habits and proper standards for the use and enjoyment of leisure and the acquirement of knowledge of techniques of plays, games, and habits of taking part in recreational activities at home and in the community.

(8) The civic objective aims to disseminate information about social institutions and their function in a society and to develop habits of taking part in these organizations for the good of all. The realization of this objective would also make possible the attainment of a broader knowledge of county, State, and National affairs.

(9) The worthy home membership objective seeks to instill in the minds of rural boys and girls the importance of the farm home, the influence it has exercised in producing stalwart leaders both men and women in our national life; and to provide a proper appraisal of the farm home as an indispensable institution to the welfare of society and to rural prosperity.

Proper understanding and appreciation of the foregoing are in my opinion essential to a well-rounded citizen, capable of filling a place of usefulness in a democratic society.

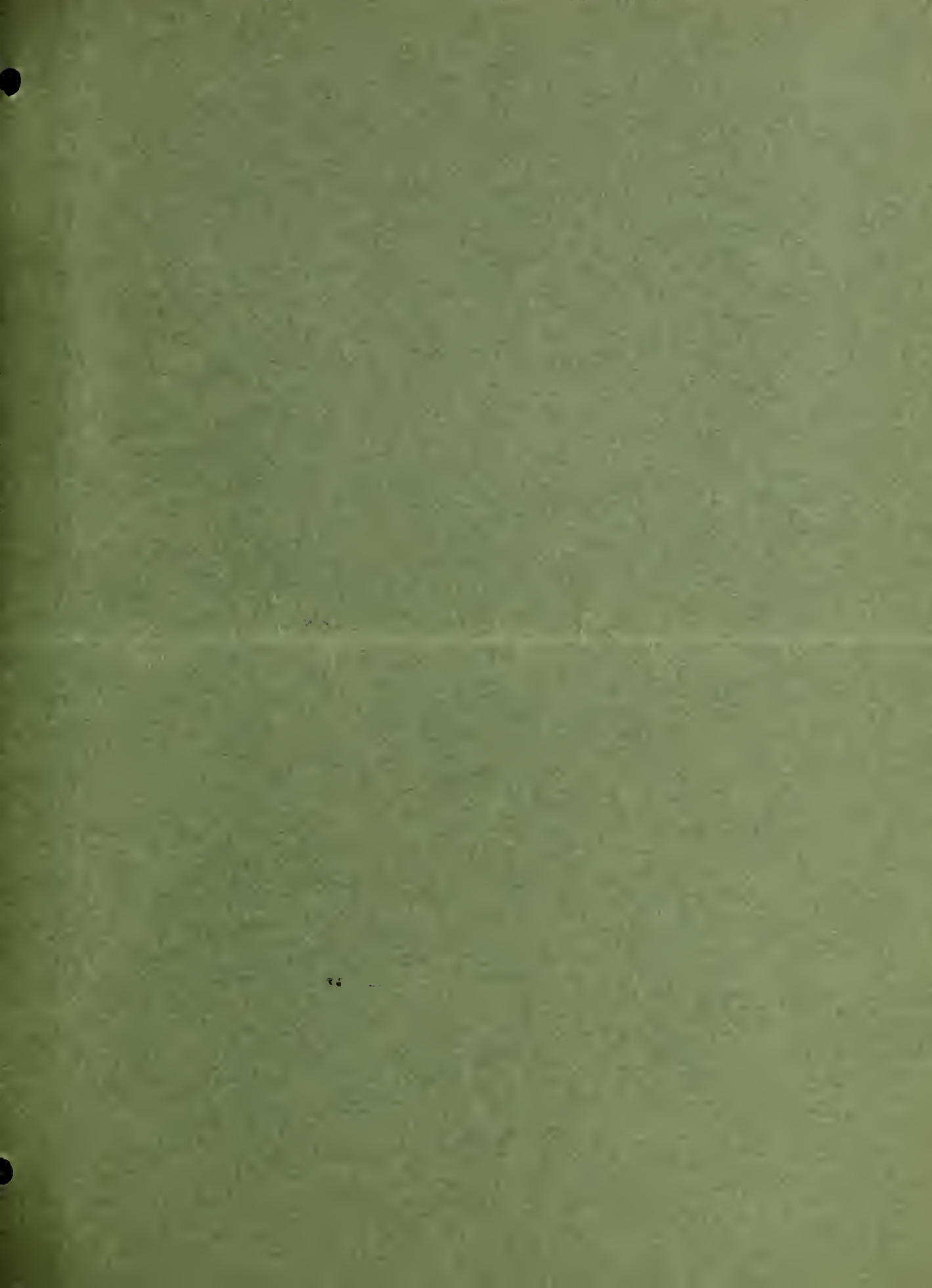
An intelligent integration of these objectives with the six essential steps previously stated should contribute immeasurably to the continued development of a methodology of extension teaching based on sound educational procedures that will be fruitful of lasting results in establishing an efficient and satisfying farm citizenry.

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# Some Principles in Extension Teaching

As Applied to 4-H Work With Farm Boys and Girls

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